

REMARKS

Reconsideration of this application, and the rejection of claims 1, 5, 6 and 8-15 are respectfully requested. Applicant has attempted to address every objection and ground for rejection in the Office Action dated January 2, 2003 and believes the application is now in condition for allowance. The claims have been amended to more clearly describe the present invention.

The indication of the allowability of claim 7 is acknowledged. However, in view of the above-indicated amendments and the following remarks, the main claims are submitted to be patentable over the newly cited prior art references.

Claims 1, 5, 6, 8-12 and 14 stand rejected under 35 U.S.C. § 102 as being anticipated by Starrett et al. in U.S. Patent No. 3,888,482. Starrett teaches a baseball pitcher's training device. The training device is a first loop 19 for encircling the base of the thumb and a second loop 20 to encircle the base of the third finger. Loops 19 and 20 are joined by a bridging strap 21. A connecting strap 22 is connected to or around bridging strap 21 and extends along the inside of the palm of the hand of the wearer to a band 12. Band 12 is made of leather or some inelastic material and is adapted securely about the wrist of the wearer.

Starrett teaches that loops 19 and 20, bridging strap 21 and connecting strap 22 are all made of an elastically-stretchable fabric material, as recited in column 2, starting at line 60. In operation, the device is used to train an athlete to properly throw a baseball. A user inserts his or her thumb into loop 19 and his or her third finger into loop 20. The elastic properties of

bridging strap 21 force these fingers together. Further, once wrist strap 12 is affixed, connecting strap 22 also forces the wrist forward into the position best illustrated in Figure 2 of Starrett.

The Applicant submits that there are a number of significant differences between the Starrett reference and the claims of the present invention. Specifically, the present invention is for a thumb splint to protect the ulnar collateral ligament of the thumb. This ligament connects the base of the thumb to the base of the index finger and the splint of the present invention is used to assist this ligament. The device in the Starrett reference which encircles the third finger of the wearer and the thumb makes it impossible for the Starrett reference to protect the ulnar collateral ligament, and therefore the Starrett reference teaches away from the present invention.

Further, Starrett teaches that thumb receiving loop 19, third finger receiving loop 20, bridging strap 21, and connecting strap 22 are elastic. Conversely, the stabilizing component of the present invention, as recited in claim 1 as amended, includes, among other things, a non-extendable, flexible connector extending between and secured to the thumb section and the index finger section for permitting the thumb and index finger to move towards each other, but limiting the movement of the index finger away from the thumb beyond a predetermined value. Further, the positioning component is now recited, among other things, as being configured for keeping the stabilizing component firmly and operatively positioned on the hand of the user.

Conversely, Starrett teaches at line 5 of column 3 that “the thumb and finger are drawn into a cupped configuration ...”. Starrett further teaches that the wrist is pulled into a flexed position as an integral part of the design of the invention. In this position, Starrett does not protect the hand from injury, but rather would induce an injury if a fall onto a hand configured in the Starrett position occurred. Thus, in Starrett, the use of an elastic connector between the two fingers, and between the connector of the fingers and the wrist, is not only contrary to the teaching of the present invention, but does not protect the thumb by preventing movement away from the first finger. Also, the elastic connecting strap 22 fails to firmly secure the two strapped fingers relative to the wrist as now claimed. Claims 1 and 8 have been amended as discussed above.

Claim 5 of the present invention teaches a strap having length sufficient to extend from said stabilizing component, along the palm of the hand of the user, to and around the wrist and along the backside of the hand. The Applicant submits that this is not taught by the Starrett reference. Specifically, the Starrett reference includes a connecting strap 22 which is only long enough to connect from the connector strap 21 to the wrist band 12. Further, the length of strap 22 is kept short on purpose in the Starrett reference in order to provide an elastic action to cock the wrist forward when the wristband is in place. Also, nothing in the Starrett reference teaches that this strap is positioned on the backside of the hand, and as specifically seen in Figure 4 of the Starrett reference, no part of the strap extends along the back of the hand of the user.

Claim 6 of the present application recites that the thumb stabilizing component and the positioning component are integral and formed of a single length of polyester or nylon or other suitable fabric webbing. Starrett, conversely, teaches a system in which the section which fits around the thumb of the third finger and the connecting strap 22 are made of one (elastic) material, and the wrist strap 12 is made of a second (inelastic) material. Therefore, the positioning component and thumb stabilizing component cannot be made of a single length of material. The Applicant therefore submits that claim 6 of the present invention also is distinct from the Starrett reference.

Claim 9 of the present application recites that the splint is made from one continuous thin and lightweight ribbon of material. The Starrett reference, conversely, cannot be made from one continuous piece of material. Specifically, strap 12 is taught to be of leather or non-extendable material, and the remainder of the pitching aid of the Starrett reference is taught to be made of an elastic material. This split in the composition of the materials makes it impossible for the Starrett reference to be comprised of a single piece of material.

Claim 10 of the present invention recites that the material is polyester or nylon or other suitable webbing. As indicated above, the Starrett reference teaches that connecting strap 22, bridging strap 21, thumb receiving section 19 and third finger receiving section 20 are all made of an elastic material. This material is therefore distinct from the material of claim 10.

Based on the above, the Applicant submits that none of claim 1, 5, 6, 8-12 and 14 are anticipated by the Starrett reference. There are significant differences between the structure and function of the Starrett strap to the thumb splint of the present invention as now claimed.

The Applicant submits that for the reasons above the rejection under 35 U.S.C. § 102 is traversed.

Claims 13 and 15 stand rejected under 35 U.S.C. § 103(a) as being obvious based on the Starrett reference. Claim 13 depends from claim 8 and for the reasons submitted above the Applicant therefore submits that claim 13 is in a condition for allowance. Further, claim 13 recites that the length of the connector is established to prevent the hyperextension of the thumb away from the base of the index finger beyond 100 degrees. Starrett teaches the connection of the thumb to the third finger, and the strap in Starrett therefore does not control the angle between the index finger and the thumb. Further, the elastic nature of bridge connector 21 in Starrett does not limit movement of the thumb to a specific angle, but would rather allow the thumb to extend to be in a position where the wearer could injure the thumb.

The different structures between Starrett and the present invention produce different results. Applicant's device limits movement of the thumb relative to the index finger, while Starrett flexes the thumb and third finger of a user's hand to a position that is optimal for holding a baseball. Claims 8 and 13 explicitly claim away from an elastic bridge connector as found in the Starrett reference. Further, regarding the fact that the thumb cannot extend beyond 100 degrees from the index finger, no evidence is presented to show that the criticality of this degree of extension was known in the art for this purpose.

Claim 15 includes a significant number of differences from the Starrett reference, and the Applicant submits that based on the differences of purpose between Starrett and the present invention, none of these would have been obvious to one skilled in the art at the time of

the invention. Specifically, claim 15 recites a thumb splint which includes an index finger receiving section for receiving an index finger of user. As indicated above, Starrett teaches that the third finger of the user receives the loop 20 in the Starrett reference. Further, Starrett teaches that it is important to use the third finger in order to grip a baseball properly. Nothing within Starrett suggests that the index finger be used.

Further, claim 15 recites a non-extendable, flexible connector extending between and secured to the thumb receiving section and the index finger receiving section. The non-extendability of the connector is important for the present invention to limit movement of the thumb away from the first finger. Conversely, bridging strap 21 in the Starrett reference is specifically taught to be extendable in order to allow the finger to move away from the thumb to release a baseball.

Claim 15 further teaches that the splint is used to prevent hyperextension or abduction of the thumb away from the base of the index finger beyond 100 degrees to a position where the wearer could injure the thumb. Conversely, the prevention of thumb injury is not a purpose in Starrett and, in fact, the position in which the hand is forced into in Starrett would promote injury if the user fell onto the hand. The 100 degree angle which is recited in this claim is neither taught nor suggested. Further, the prevention of movement of the thumb away from the index finger is not prevented by the structure of the Starrett reference, which uses the third finger instead of the index finger and therefore does not regulate the angle between the first finger and the thumb.

Applicant submits that by the arguments asserted above, the rejection of claims 13 and 15 under 35 U.S.C. § 103(a) has been successfully traversed.

Applicant respectfully suggests that in the outstanding Action, the rejections evidence “picking and choosing” components of Starrett and modifying them when there is no suggestion in the references to do so. One of the problems addressed by Applicant was the application of equal forces to both the front and the back of the hand to keep the thumb and finger receiving sections in position. Nowhere was this question addressed by the prior art. The reference relied upon by the Examiner suggests that the pressure should be kept on the front of the hand in order to cock the wrist. There would, therefore, be no reasonable expectation of solving the problem faced by the Applicant. When obviousness is considered, the standard is not that the combination was obvious to try, it must be obvious that the resulting composition would successfully solve the problem. None of the rejections based on § 103(a) are appropriate when the problem faced and solved by the Applicant is not considered in the prior art. The problem considered by the inventor must be considered in making determination as to the obviousness of the invention over references.

None of these references, whether cited or of record, taken either alone or in combination, disclose or suggest the invention as claimed.

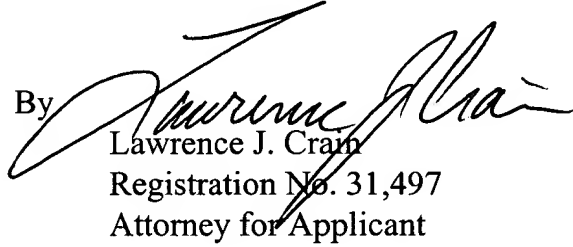
Applicant submits that in view of the above remarks, the claims in their present form of patentability are distinct over the art of record. Allowance of the rejected claims is respectfully requested. Should the Examiner discover that there are remaining issues which may

be resolved by a telephone interview, he is invited to contact the Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,

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